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Daily MCQs: 29-07-2024

1. Consider the following statements about the First Past the Post System (FPTP)

- 1) In India, we follow the First Past the Post System (FPTP) in our elections to the Lok Sabha and Legislative Assemblies.
- 2) Under this system, the candidate who polls more than any other in a constituency is declared elected.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

2. Consider the following statements about the Protection of Plant Varieties and Farmers Rights Act.

1. It provides an effective framework to conserve and encourage the development of various plant varieties.
2. To implement the provisions of the Act, the government established the Protection of Plant Varieties and Farmers' Rights Authority.
3. It was enacted as part of India's obligation towards Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1,2 and 3

3. Which of the following best describes Fast Radio Bursts (FRBs)?

- A) Extremely bright radio pulses from distant galaxies
- B) Rapidly moving asteroids in the asteroid belt
- C) Flares of gamma rays emitted during stellar explosions
- D) None of the above

4. Consider the following statements about CITES

- 1) It is an NGO working globally on trade in wild animals and plants.
- 2) It aims to conserve only those species which are declared 'endangered' under the International Union for Conservation of Nature (IUCN) Red list.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

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5. Under the Pradhan Mantri Mudra Yojana (PMMY), collateral free loans are provided to which of the following sectors?

- 1) Manufacturing sector
- 2) Trading and service sectors
- 3) Activities allied to agriculture

Select the correct answer using the codes given below

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Solutions:

1. Answer: C

Explanation

- Both the statements are correct.
- In India, we follow the **First Past the Post System (FPTP)** in our elections to the **Lok Sabha and Legislative Assemblies**.
- Under this system, the **candidate who polls more than any other in a constituency is declared elected**.
- This is the system that is followed for elections in democracies like **the U.S., the U.K. and Canada**.

Advantages of FPTP system

- The primary advantage of the FPTP system is that it is **simple and the most feasible method** in a large country like India.
- Secondly, FPTP provides **greater stability to the executive** in our parliamentary democracy because the ruling party/coalition can enjoy a majority in the Lok Sabha/Legislative assembly without obtaining a majority of the votes (more than 50%) across constituencies.
- The issue with FPTP is that it may result in **over or under representation of political parties when compared to their vote share**. For instance, in the first three elections after independence, the Congress party won close to 75% of seats in the then Lok Sabha with a 45-47% vote share.

What is proportional representation?

- The Proportional Representation (PR) system **ensures representation of all parties based on their vote share**.
- The most commonly used PR system is the **'party list PR'** where voters vote for the party (and not individual candidates) and then the parties get seats in proportion to their vote share.
- There is usually a minimum threshold of 3-5% vote share for a party to be eligible for a seat.
- India is a federal country and this principle if implemented should **ideally be carried out at each State/Union Territory (UT) level**.

Challenges

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- The main criticism against the PR system is that it could **potentially result in instability** as no party/coalition may obtain a majority to form the government in our parliamentary democracy.
- Further, it may result in the **proliferation of political parties based on regional, caste, religious and linguistic considerations** that may promote casteist or communal voting patterns.
- However, the second criticism is not well founded since the present **FPTP system has also not inhibited the formation of parties based on caste or communal considerations.**
- This issue can be addressed by **specifying a minimum threshold for votes polled** in order to make a party eligible for seats in legislative houses.
- In order to maintain balance between stability and proportionate representation, the system of **Mixed Member Proportional Representation (MMPR)** can be considered.
 - Under this system, there is **one candidate who is elected through the FPTP system from each territorial constituency.** There are also **additional seats that are filled based on various parties' percentage of votes.**

2. Answer: D

Explanation

- **Statement 1 is correct:** The Protection of Plant Varieties and Farmers Rights' Authority (PPV & FR) Act, 2001, provides an effective framework to **conserve and encourage the development of various plant varieties.**
- **Statement 3 is correct:** The Act was enacted as part of **India's obligation towards Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO).**
- **Statement 2 is correct:** To implement the provisions of the Act, the government established the **Protection of Plant Varieties and Farmers' Rights Authority** in 2005.

Objectives of the Act

- To establish an **effective system for the protection of plant varieties, the rights of farmers and plant breeders** and to **encourage the development of new varieties of plants.**
- To **accelerate agricultural development in the country, stimulate investment for research and development** for the development of new plant varieties.
- **Facilitate the growth of the seed industry** in the country which will ensure the availability of high quality seeds and planting material to the farmers.

What is the meaning of protection of plant varieties?

- The protection on the variety under the Act means no one can sell, export, import or produce the seed or propagating materials of such protected (registered) plant variety without the registered breeder's (owner's) permission.
- A variety is eligible for registration under the Act if it **essentially fulfills the criteria of Distinctiveness, Uniformity and Stability (DUS).**

Rights under the Act

Breeders' Rights:

- Breeders will have **exclusive rights to produce, sell, market, distribute, import or export the protected variety.**
- Breeders may exercise for civil remedy in case of infringement of rights.

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Researchers' Rights:

- Researchers can use **any of the registered varieties under the Act for conducting experiment or research.**
- This includes the use of a variety as an initial source of variety for the purpose of developing another variety but **repeated use needs prior permission** of the registered breeder.

Farmers' Rights:

- A Farmer who has **evolved or developed a new variety is entitled for registration and protection** in like manner as a breeder of a variety;
- A farmer can **save, use, sow, re-sow, exchange, share or sell his farm produce including seed of a variety protected** under the PPV & FR Act in the same manner as he was entitled before the coming into force of this Act provided farmer shall not be entitled to sell branded seed of a variety protected under the PPV&FR Act.
- Farmers are eligible for **recognition and rewards** for the conservation of Plant Genetic Resources of land races and wild relatives of economic plants;
- **Farmers shall not be liable to pay any fee** in any proceeding before the Authority or Registrar or the Tribunal or the High Court under the Act.

Community Rights:

- It is **compensation to village or local communities for their significant contribution** in the evolution of variety which has been registered under the Act.
- Any person/group of persons/governmental or non-governmental organization, on behalf of any village/local community in India, can file in any notified center, claim for contribution in the evolution of any variety.

3. Answer: A

Explanation

- Fast radio bursts (FRB) are **extremely bright radio pulses from distant galaxies that last for only a few milliseconds.**
- These brief and mysterious beacons have been spotted in various and distant parts of the universe, as well as in our own galaxy.
- FRBs are extraordinary events that **generate as much energy in a thousandth of a second as the Sun does in an entire year.**
- Locating where these blasts are coming from, and in particular, what galaxies they originate from, is important in determining what kinds of astronomical events trigger such intense flashes of energy.
- Nearly 1,000 FRBs have been identified since their first detection in 2007. However, their **origins are unknown and their appearance is highly unpredictable.**
- For this, studies are currently on gaseous matter and stars from the nearby galaxies hosting FRBs.

Key characteristics and features of Fast Radio Bursts:

1. **Brief and Intense:** FRBs are **incredibly short-lived events**, typically lasting only a few milliseconds. However, during their brief duration, they emit an **enormous amount of energy, equivalent to the energy released by hundreds of millions of suns.**
2. **Radio Waves:** FRBs are detected as **transient radio signals in the electromagnetic spectrum.** They are observed at **various radio frequencies**, ranging from a few hundred megahertz to several gigahertz.

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3. **Origin and Distance:** The exact origin and nature of FRBs are still **not fully understood**. However, they are believed to originate from **distant extragalactic sources** located billions of light-years away from Earth.
4. **Dispersion Measure:** One of the most intriguing properties of FRBs is the dispersion measure. As the radio waves from an FRB travel through interstellar space, they encounter **free electrons** that cause the waves to **disperse**, with **lower-frequency waves arriving slightly later than higher-frequency waves**. The dispersion measure helps scientists **estimate the distance to the FRB source and provides clues about the intervening medium**.
5. **Repeating and Non-Repeating FRBs:** Some FRBs have been observed to repeat, emitting multiple bursts over time, while others have been observed only once. Repeating FRBs offer scientists the opportunity to study them in more detail and investigate their origins.
6. **Astrophysical Origin:** The exact astrophysical mechanisms that generate FRBs are still a topic of active research and debate. Several hypotheses have been proposed, including **neutron star mergers, magnetars (highly magnetized neutron stars), and other cataclysmic events** in the universe. Pinpointing the exact source of FRBs remains a significant challenge.
7. **Detection and Observatories:** FRBs are detected using **radio telescopes**, which are equipped with sensitive receivers capable of capturing and analyzing the radio wave signals.

4. Answer: D

Explanation

- **Both the statements are incorrect.**
- **CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora)** is an international agreement between governments that aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
- Although CITES is legally binding on the Parties (in other words they have to implement the Convention), it does not take the place of national laws. Rather it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES is implemented at the national level.
- **It does not aim to conserve only those species which are declared 'endangered'** under the International Union for Conservation of Nature (IUCN) Red list
 - Rather it has listed species in three CITES Appendices. The species are grouped in the Appendices according to the level of threat faced by them due to **international trade**.

CITES Appendices

- **Appendix I** lists species that are the most endangered among CITES-listed animals and plants. They are threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial for instance for scientific research.
- **Appendix II** lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled.
- **Appendix III** is a list of species included at the request of a Party that already regulates trade in the species and that needs the cooperation of other countries to prevent unsustainable or illegal exploitation. International trade in specimens of species listed in this Appendix is allowed only on presentation of the appropriate permits or certificates.

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5. Answer: D

Explanation

- Launched in 2015 to promote entrepreneurship, Pradhan Mantri Mudra Yojana (PMMY) provides loans upto **Rs. 10 lakh to the non-corporate, non-farm small/micro enterprises.**
- PMMY aims to **“fund the unfunded”** by bringing such enterprises to the formal financial system and extending affordable credit to them.
- Under PMMY **collateral free loans of upto Rs. 10 Lakh** are extended by **Member Lending Institutions (MLIs)** viz Scheduled Commercial Banks, Regional Rural Banks (RRBs), Small Finance Banks (SFBs), Non Banking Financial Companies (NBFCs), Micro Finance Institutions (MFIs) etc.
- **All the statements are correct:** The loans are given for **income generating activities in manufacturing, trading and services sectors and for activities allied to agriculture.**
- Mudra loans are offered in three categories namely, ‘Shishu’, ‘Kishore’ and ‘Tarun’ which signifies the stage of growth or development and funding needs of the borrowers:-
 - **Shishu** : covering loans upto Rs. 50,000/-
 - **Kishore** : covering loans above Rs. 50,000/- and upto Rs. 5 lakh
 - **Tarun** : covering loans above Rs. 5 lakh and upto Rs. 10 lakh.
- With an objective to promote entrepreneurship among the new generation aspiring youth, it is ensured that **more focus is given to Shishu Category loans and then Kishore and Tarun categories.**